LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

GRADE 07

NATURAL SCIENCES

08 MAY 2025

PRACTICAL TASK

MARKS: 20

TIME: 1:30 Hours

This **question paper** consists of 4 **pages**, including this front page.

INSTRUCTIONS:

1. **Read each question carefully before answering.**
2. **Number your answer correctly and exactly as in the question.**
3. **Answer all questions in this question paper.**

Practical Activity: Separating Mixtures

Objective:

- To explore and demonstrate different methods of separating mixtures
- To understand the properties that allow mixtures to be separated

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Materials Needed:

1. A mixture of sand and water
2. A mixture of salt and water
3. Iron filings and Sulfur powder
4. A mixture of oil and water
5. Filter paper
6. A magnet
7. Beakers / transparent container
8. A funnel
9. Evaporation dish /saucer / plate
10. Separating funnel (if available)
11. Ink

1. Filtration – Sand and Water (2 marks)

- Instructions:
  1. Pour the sand-water mixture into a funnel lined with filter paper.
  2. Observe and record your findings.

1.1 What do you observe in the funnel after filtration?

_____
_____(1)

1.2 Why does sand remain on the filter paper, but water passes through?

_____
_____(1)

2: Evaporation – Salt and Water (2 marks)

- Instructions:
  1. Pour the salt-water mixture into an evaporation dish.
  2. Leave the dish in the sun until all water evaporates.

2.1 What remains in the dish after evaporation?

_____
_____(1)

2.2 Why is evaporation an effective method for separating salt from water?

_____
_____ (1)

3: Magnetism – Iron Filings and Sulfur (2 marks)

- Instructions:
  1. Place the mixture on A4 paper.
  2. Move a magnet over it and observe.

3.1 What is attracted to the magnet?

_____
_____(1)

3.2 Why does this method work?

_____
_____(1)

4: Separating Oil and Water (2 marks)

- Instructions:
  1. Pour the oil-water mixture into a transparent container.
  2. Let it settle.
  3. Use a separating funnel or decant to separate layers.

4.1 What do you observe about the oil and water layers?

_____
_____ (1)

4.2 Why does the separating funnel work for this mixture?

_____
_____ (1)

5: Applications in Real Life (4 marks)

5.1 How can separating mixtures help protect the environment? Give two examples and explain.

Example 1:

_____
_____

_____
_____

_____
_____(2)

Example 2:

_____
_____

_____
_____

_____
_____ (2)

6: **Decantation – Sand and Water (2 marks)**

Instructions:

1. Pour the sand-water mixture into a transparent container.
2. Let it settle for some time until the sand settles at the bottom
3. Carefully pour the water into another container.

6.1 What do you observe after decantation?

_____

_____
_____(1)

6.2 Why is decantation an effective method for this mixture?

_____

_____
_____(1)

7: Chromatography – Ink (2 marks)

Instructions:

1. Place a strip of filter paper vertically into a beaker with a small amount of water.
2. Add a drop of black ink onto the filter paper just above the water level.
3. Observe how the ink separates into different colors.

7.1 What colors do you observe on the filter paper?

_____

_____
_____ (1)

7.2 Why does chromatography separate the ink into its components?

_____
_____
_____ (1)

Effort and Presentation (4 marks)

✓ Work is neat
✓ Answers are complete
✓✓ Work is logically presented

GRAND TOTAL=20